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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,380	06/29/2001	Gary L. Graunke	42390P11153	9543

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EXAMINER

SHIFERAW, ELENI A

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/896,380

Applicant(s)

GRAUNKE, GARY L.

Examiner

Eleni A Shiferaw

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/02/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ^o
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/29/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-21 are presented for examination.

Drawings

2. The drawings are objected to because the office no longer accepts hand written drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4-12, 15-18, and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Son et al. (Son, Pub. No.: US 2001/0017920 A1).

As per claims 1 and 12, Son discloses a method or machine-readable medium having stored thereon data representing sequences of instructions which, when executed by a machine, cause the machine to perform operations comprising:

generating a cipher stream based on a first key for encrypted streamed content (Son Page 2 par. [0028-0029]; generating encrypted video content based on a first key);

generating a second cipher stream based on a second key to re-encrypt the streamed content (Son Page 2 par. 0029);

receiving the encrypted streamed content (Son page 1 par. 0010; receiving video content in a first encrypted form);

simultaneously decrypting and re-encrypting the encrypted content using a combination of the first and the second cipher streams (Son page 2 par. 0029-0032);

conveying the re-encrypted content to a sink (Son Abstract, and page 2 par. 0032; conveying the re-encrypted content to a set-top-box).

As per claim 17, Son discloses an apparatus comprising:

a content interface to receive encrypted streamed content (Son Page 1 par. 0010);

a computing device (Son Abstract; remote server) to generate a cipher stream based on a first key for encrypted streamed content (Son Page 2 par. [0028-0029]), to generate a second cipher stream based on a second key to encrypt streamed content (Son page 2 par. 0029) and to simultaneously decrypt and re-encrypt the received encrypted streamed content using a combination of the first and the second cipher streams (Son page 2 par. 0029); and

a sink interface to convey the re-encrypted content to a sink (Son Abstract and page 2 par. 0032).

As per claim 4 and 15, Son discloses the method or the medium, wherein the first key and the second key have symmetric agreement (Son page 2 par. 0030).

As per claim 5, Son discloses the method, further comprising receiving one or more of the first key and the second key over a secure authenticated channel (Son page 1 par. [0020-0021], page 3 par. 0038, and page 2 par. 0031).

As per claim 6, Son discloses the method, wherein receiving a key over a secure authenticated channel comprises receiving the key from a sales server (Son Page 1 par. 0020-0021, and page 2 par. 0031).

As per claim 7, Son discloses the method, wherein the secure authenticated channel comprises an Internet connection (Son Page 3 par. 0043).

As per claim 8, Son discloses the method, wherein the secure authenticated channel comprises a telephone line (Son Page 1 par. 0021, and page 3 par. 0045).

As per claim 9, Son discloses the method, further comprising conveying the second key to the sink to enable the sink to decrypt the re-encrypted content (Son Page 2 par. 0031-0032).

As per claim 10, Son discloses the method, wherein the encrypted streamed content is publicly available and encrypted with a public key and wherein the first key is a locally available private key (Son Page 2 par. 0030).

As per claim 11, Son discloses the method, wherein the encrypted content is a broadcasted entertainment program (Son Page 2 par. 0026).

As per claim 16, Son discloses the medium, further comprising instructions which, when executed by the machine, cause the machine to perform further operations comprising receiving one or more of the first key and the second key over a secure authenticated channel (Son page 1 par. [0020-0021], page 3 par. 0038, and page 2 par. 0031).

As per claim 18, Son discloses the apparatus, further comprising a secure authenticated channel interface to receive one of either the first key or the second key (Son Page 2 par. 0031, page 3 par. 0043).

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As per claim 20, Son discloses the apparatus, wherein the computing device conveys the second key to the sink to enable the sink to decrypt the re-encrypted content (Son Page 2 par. [0031-0032]).

As per claim 21, Son discloses the apparatus, wherein the computing device includes a broadcast entertainment set-top box (Son Page 3 par. 0037).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-3, 13-14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Son et al. (Son, Pub. No.: US 2001/0017920 A1) in view of Akiyama et al. (Akiyama, Patent No.: US 6,460,137 B1).

As per claim 2, Son teaches all the subject matter as described above.

Son does not explicitly teach exclusive OR-ing,

However Akiyama teaches exclusive OR-ing to encrypt and decrypt content (Akiyama Col. 8 lines 39-51),

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Akiyama with in the system of Son because it

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would allow to output an exclusive OR of the value of result of the encryption by the second DES encryption circuit (Akiyama Col. 3 lines 10-26, Abstract). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the exclusive OR-ing with in the system wherein simultaneously decrypting and re-encrypting the encrypted streamed content because it would allow to make simultaneous decryption and re-encryption easier.

As per claim 3, Son and Akiyama teach all the subject matter as described above. In addition Akiyama teach the method, wherein the cipher stream combination comprises a result of exclusive OR-ing the first and second cipher streams (Akiyama Col. 8 lines 39-51). The rational for combining are the same as claim 2 above.

As per claim 13 the medium, wherein the instructions for simultaneously decrypting and re-encrypting the encrypted streamed content comprise instructions which, when executed by the machine, cause the machine to perform further operations comprising exclusive OR-ing the encrypted streamed content with the cipher stream combination (Akiyama Col. 8 lines 39-51). The rational for combining are the same as claim 2 above.

As per claim 14 the medium, wherein the cipher stream combination comprises a result of exclusive OR-ing the first and second cipher streams (Akiyama Col. 8 lines 39-51). The rational for combining are the same as claim 2 above.


As per claim 19 the apparatus, wherein the first key and the second key have symmetric agreement and wherein the combination of the first and the second cipher streams is a result of exclusive OR-ing the encrypted content stream with an encryption stream (Akiyama Col. 8 lines 39-51). The rationale for combining are the same as claim 2 above.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eleni Shiferaw
Art Unit 2136


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